

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/058703 A1

(51) International Patent Classification⁷: **B65B 35/56, B65G 47/244**

(21) International Application Number:
PCT/SE2004/001719

(22) International Filing Date:
24 November 2004 (24.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0303423-8 16 December 2003 (16.12.2003) SE

(71) Applicant (for all designated States except US): **TETRA LAVAL HOLDINGS & FINANCE S.A.** [CH/CH]; Av. Général-Guisan 70, CH-1009 Pully (CH).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PERSSON, Richard** [SE/SE]; Vitklövernägen 15, S-261 71 Landskrona (SE).

(74) Agent: **AHL, Camilla**; AB TETRA PAK, Patent Department, Ruben Rausing's gata, S-221 86 Lund (SE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

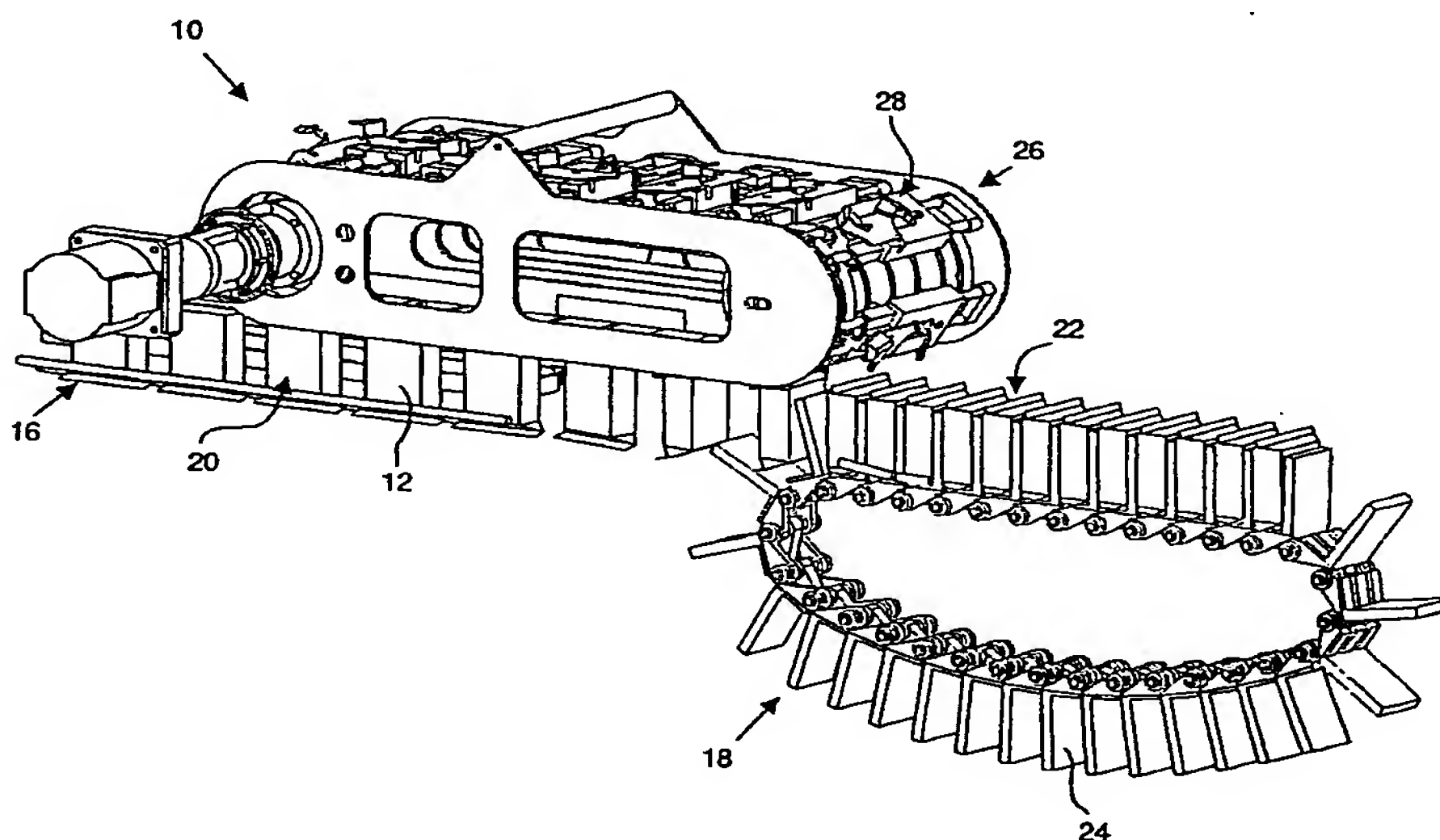
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **AN APPARATUS AND METHOD FOR TURNING CONTAINERS**



(57) Abstract: The disclosure relates to an apparatus (10) comprising a turning mechanism which is adapted to change the orientation of a number of packaging containers (12) in motion in a filling machine, from a first orientation (20) to a second orientation (22), comprising a conveyor (26) provided with at least one carrier (28) to which at least one carrier unit is connected. According to the invention, the carrier unit is rotary in relation to the carrier (28) about a geometric axis of rotation and is adapted to carry the packaging container (12) in such a manner that the point of gravity of the packaging container during the change in orientation is substantially located on the geometric axis of rotation, and the point of gravity of the packaging container thereby maintains substantially the same direction and speed from the first to the second orientation (20, 22).